

ABSTRACT

A PCI Express-compatible flash device can include one or more flash memory modules, a controller, and an ExpressCard interface. The controller can advantageously provide PCI Express functionality as well as flash memory operations, e.g. writing, reading, or erasing, using the ExpressCard interface. A PIO interface includes sending first and second memory request packets to the flash device. The first memory request packet includes a command word setting that prepares the flash device for the desired operation. The second memory request packet triggers the operation and includes a data payload, if needed. A DMA interface includes sending the second memory request from the flash device to the host, thereby triggering the host to release the system bus for the DMA operation.